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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,694	04/09/2004	William Alejandro Thompson	P25130	8732

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EXAMINER	
GHALI, ISIS A D	

ART UNIT	PAPER NUMBER
1611	

NOTIFICATION DATE	DELIVERY MODE
06/10/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/820,694	THOMPSON, WILLIAM ALEJANDRO	
	Examiner	Art Unit	
	Isis A. Ghali	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-7 and 13-28* is/are pending in the application.

4a) Of the above claim(s) *1-7,13-17 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18,19 and 21-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The receipt is acknowledged of applicant's amendment and declaration, both filed 03/24/2010.

Claims 1-7, 13-25 previously presented. Claims 26-28 are currently added.

Claims 1-7 and 13-28 are pending.

Election/Restrictions

1. This application contains claims 1-7, 13-17, 20 drawn to an invention nonelected with traverse in the reply filed on 12/19/2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claims 18, 19, 21-28 are included in the prosecution.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 18, 19 and 21-25, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ramirez et al. (US 5,342,535), Youssefyeh (US 2001/0036489), and Sharma et al.

Applicant Claims

Currently amended claim 18 is directed to a method of treating and/or alleviating at least one of pain, aches, and inflammation comprising, dissolving in a bath a pharmaceutical composition for transdermal delivery comprising: at least one skin permeation enhancer comprising clarified sesame oil; at least one effervescent agent;

and at least one active ingredient or pharmaceutically acceptable salt thereof comprising ibuprofen; and, immersing a body part of a human being to be treated in the bath containing the dissolved pharmaceutical composition.

Currently amended claim 25 is directed to a method of delivering ibuprofen across the skin comprising dissolving a composition in form of a tablet in a bath, the composition comprising: at least one skin permeation enhancer comprising clarified sesame oil in an amount from about 1% to about 5% by weight based on the total weight of the composition; and at least one active ingredient comprising ibuprofen present in an amount from about 1% by weight to about 10% by weight based on the total weight of the composition; at least one effervescent agent present in an amount from about 30% to about 70% by weight based on the total weight of the composition; and at least one acid agent present in an amount from about 20% to about 40% by weight based on the total weight of the composition; and immersing a body or part of a body in the bath for at least five minutes.

Determination of the Scope and Content of the Prior Art

(MPEP §2141.01)

Ramirez teaches effervescent tablet formulation comprising an analgesic to provide analgesic soak providing therapeutic effect when contacts the user skin (col.3, lines 36-43; col.4, lines 61-68). Example 8 at col. 7 directed to analgesic soak tablet comprising 37.5% by weight sodium bicarbonate, 36.0% by weight citric acid, 1% by

weight menthol which is used as analgesic, and 2% by weight mineral oil that reads on permeation enhancer. All the amounts of the ingredients disclosed by the reference fall within the instantly claimed ranges. The ratio between menthol (analgesic) and mineral oil (permeation enhancer) is 1:2 which falls within the ratio of 3.0:0.5 to 0.5:3.0 required by claim 22. Example 8 further discloses that the tablet weight is 20 grams (as required by claim 23) and the tablet is added to warm water. The claimed method of treating and/or alleviating at least one of pain, ache and inflammation is implied by example 8 that is directed to "analgesic soaks" that inherently will provide analgesia. The step of immersing body part is implied by the term "soak".

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

Although Ramirez teaches analgesic soaks comprising menthol as analgesic and mineral oil that acts as permeation enhancer, however, the reference does not explicitly teach ibuprofen as analgesic agent, or the specific sesame oil as permeation enhancers as claimed by claims 18 and 25. Ramirez does not explicitly teach the time of soaking the body part as claimed by claim 21 and 25, or using the bath tub for immersing the body part as claimed by claim 24 or frequency of applying the treatment as claimed by claimed 27 and 28.

Youssefyeh teaches treating rheumatoid arthritis and osteo-arthritis pain using bathing composition comprising anti-inflammatory agent including ibuprofen and

safflower oil for at least once a day (paragraphs 0094-0101; 0140, 0141). The composition may comprise sodium bicarbonate and citric acid (paragraph 0126).

Sharma teaches method for increasing the flux of drugs across the skin using topical composition comprising vegetable oils in combination with other enhancers. Preferred vegetable oils include sesame oil. Combination of enhancers forms from 5-25% of the topical composition. Drugs include analgesics. See abstract; col.3, lines 65-68; col.4, lines 13-16; col.5, lines 3-5, 40-45; claim 1.

Finding of Prima Facie Obviousness Rational and Motivation

(MPEP §2142-2143)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide tablet to be dissolved in water comprising analgesic soak comprising effervescent agent, acid, analgesic and mineral oil as taught by Ramirez, and replace the analgesic with ibuprofen taught by Youssefyeh and apply the composition at least once a day. One would have been motivated to do so because Ramirez desired to provide analgesia by soaking/bathing part of the body afflicted with pain in composition comprising analgesic and Youssefyeh teaches that pain can be treated by composition comprising ibuprofen, safflower oil, bicarbonate and citric acid added to bathwater that used at least once a day. One would reasonably expect treating pain by bathing or soaking part of the body suffering from pain in bath comprising effervescent agent, acid, ibuprofen and oils wherein the pain is relieved effectively.

Additionally, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide analgesic soak tablet to be dissolved in water comprising effervescent agent, acid, ibuprofen and oil as taught by Ramirez combined with Youssefyeh, and further replace the oils with sesame oils combined with other enhancer taught by Sharma. One would have been motivated to do so because Sharma teaches that sesame oil enhances the flux of drugs through the skin and can be used combined with other permeation enhancers. One would reasonably expect treating pain by bathing or soaking part of the body suffering from pain in bath comprising effervescent agent, acid, ibuprofen and sesame oil and other permeation enhancer wherein the flux of ibuprofen to the skin is enhanced.

Regarding the duration for immersing a body part and frequency of applying the treatment, those of ordinary skill in the art would have been readily optimized effective duration for application of dosages and concurrent administration regimens as determined by good medical practice and the clinical condition of the individual patient. Determination of the appropriate treatment time involving the above mentioned formulation would have been routinely made by those of ordinary skill in the art and is within the ability of tasks routinely performed by them without undue experimentation depending on individual patient, such as age, weight, sex, etc., site to be treated, and severity of condition to be treated.

Regarding claim 24, one having ordinary skill in the art would have selected the bathtub for soaking part of the body for convenience and comfort of the user. Further,

Ramirez teaches adding the tablet to 50 liters of water, and this large amount of water would obviously suggest the bath tub.

Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made.

The present invention as a whole is taught by the combined teachings of the cited prior art, and would have been prima facie obvious in the meaning of U.S.C. 103(a).

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ramirez et al. (US 5,342,535), Youssefyeh (US 2001/0036489), and Sharma et al. (US 5,229,130) as applied to claims 18, 19, 21-25 and 27-28 above and further in view of Buyuktimkin (US 6, 083,996).

Applicant Claims

Applicant 's claim 26 recites that the permeation enhancer further comprises isopropyl myristate.

Determination of the Scope and Content of the Prior Art

(MPEP §2141.01)

The combined teachings of Ramirez et al., Youssefyeh, and Sharma et al. are discussed above.

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

Although the combined teachings of Ramirez et al., Youssefyeh, and Sharma teach permeation enhancer in the composition, however, the references do not explicitly teach isopropyl myristate claimed by claim 26.

Buyuktimkin teaches topical formulation for NSAID delivery for management of pain comprising drug and permeation enhancer including isopropyl myristate (abstract; co1.1, lines 10-14; col.2, lines 1-5; col.4, lines 1-60; col.6, lines 47-49, examples). Example 27 at co1.17 shows the composition comprising 5% ibuprofen and 5% isopropyl myristate.

Finding of Prima Facie Obviousness Rational and Motivation (MPEP §2142-2143)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to treat pain by bathing or soaking part of the body suffering from pain in bath comprising effervescent agent, acid, ibuprofen, sesame oil and other permeation enhancer as taught by the combined teachings of Ramirez, Youssefyeh and Sharma, and replace the permeation enhancer with isopropyl myristate taught by Buyuktimkin. One would have been motivated to do so because Buyuktimkin teaches

that isopropyl myristate is preferred enhancer for ibuprofen for topical delivery and pain management. One would reasonably expect treating pain by bathing or soaking part of the body suffering from pain in bath comprising effervescent agent, acid, ibuprofen, sesame oil and isopropyl myristate wherein the flux of ibuprofen to the skin is enhanced to achieve the desired analgesic effect.

Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

6. Applicant's arguments filed 03/24/2010 have been fully considered but they are not persuasive.

Applicant argues that the cited references failed to teach or suggest a composition comprising a combination of ibuprofen and clarified sesame oil.

In response to this argument, it is noted that applicant attacks the references individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that the references in combination do not teach ibuprofen and clarified sesame oil.

Unlike applicant's assertion, the combination of the prior art of record teaches treating pain by bathing or soaking part of the body suffering from pain in bath comprising effervescent agent, acid, ibuprofen, sesame oil and isopropyl myristate. The present invention as a whole is taught by the combined teachings of the cited prior art, and would have been prima facie obvious in the meaning of U.S.C. 103(a). In considering the disclosure of the reference, it is proper to take into account not only the specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). The rational to modify or to combine the prior art does not have to be expressly stated in the prior art; the rational may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art. The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve different problem. It is not necessary that the prior art suggest the combination or modification to achieve the same advantage or result discovered by applicant. *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972).

Applicant argues that the monounsaturated and polyunsaturated fatty acids common to the other vegetable and nut oils are present in sesame oil in different

proportions. Furthermore, clarified sesame seed oil contains unsaponifiables such as two natural antioxidants called sesamin and sesamol and unsaponifiable sesamoline.

In response to this argument, it is argued that sesame monounsaturated and polyunsaturated fatty acids as well as unsaponifiables are inherently and inevitably present in sesame oil taught by the prior art. Purer forms of known products may be patentable, but the mere purity of a product, by itself, does not render the product unobvious. See MPEP 2144.01, VII. Therefore, it would have been obvious to use the clarified form of sesame oil taught by Buyuktimkin motivated by the desire to use a product that has advantageous properties of component of sesame oil.

Applicant argues that the presence of sesamin and sesamol help dissolve ibuprofen into the sesame oil and allow the dissolution of ibuprofen in sesame oil to a super-saturation point because sesamin and sesamol contain a high degree of polarity and conjugated double bonds similar to ibuprofen that would enable solubilization on the classic theory of "like dissolves like." A third unsaponifiable species, called sesamoline, which in the present invention also may also assist in ibuprofen transdermal absorption though the skin.

In response to this argument, it is argued that super-saturation of ibuprofen in sesame oil is not claimed. Further, sesamin, sesamol and sesamoline are present is sesame oil taught by Buyuktimkin and will display the same function as instantly claimed since materials and their properties are inseparable. If the prior art meets the structure recited, the properties must be met or Applicant's claim is incomplete. This is

in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties.

Response to Amendment

7. The declaration under 37 CFR 1.132 filed 03/24/2010 is insufficient to overcome the rejection of claims 18, 19, 21-28 based upon U.S.C 103 (a) over the combination of Ramirez et al., Youssefyeh, Sharma et al. and Buyuktimkin as set forth in this Office action because: it include(s) statements which amount to an affirmation that the claimed subject matter functions as it was intended to function as evident by the teaching of cited prior art that teaches sesame oil as permeation enhancer. This is not relevant to the issue of nonobviousness of the claimed subject matter and provides no objective evidence thereof.

The declaration further refers only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. Claims 18 and 25 recite clarified sesame oil, while the examples and the present declaration are directed to combination of sesame oil with isopropyl myristate. Further, the unexpected results provided by applicants are shown by "formulation comprising oil phase containing supersaturated ibuprofen" that is not claimed, because the present claims are directed to tablet formulation. Regarding the statement that clarified sesame oil contains monounsaturated and polyunsaturated fatty acids as well as unsaponifiables, it is argued that ingredients of sesame oil are

inherently and inevitably present in sesame oil taught by the prior art. Purer and forms of known products may be patentable, but the mere purity of a product, by itself, does not render the product unobvious. See MPEP 2144.01, VII. Therefore, it would have been obvious to have used the clarified form of sesame oil taught by Buyuktimkin motivated by the desire to use a product that has advantageous properties of component of sesame oil.

In paragraph 4 of the declaration applicant stated that color images are attached evidencing the super-saturation of ibuprofen in clarified sesame oil as compared to almond oil and/or olive oil. However, the images are scanned into the application and appear as black and white images that do not show any details of applicant's work. Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

> The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

8. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness. See MPEP § 716.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isis A. Ghali whose telephone number is (571) 272-0595. The examiner can normally be reached on Monday-Thursday, 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on (571) 272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IG

/Isis A Ghali/
Primary Examiner, Art Unit 1611